

A NEW SPECIES OF *CALANTHE* R.BR (ORCHIDACEAE) FROM
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(With eight text-figures)

While carrying out floristic survey of West Sikkim during May 1996, the author came across one interesting plant belonging to family Orchidaceae. On critical study, this was found to be a new species of *Calanthe* R.Br which is being described here with an illustration.

Calanthe yuksomnensis S.Z. Lucksom sp. nov.

Calanthe herbacea Lindl affinis sed differt Folia 3, 50-60 cm longa, petiolata; lamina 20-30 x 6-12.10 cm, elliptico-lanceolata, acuta; petiolus 20-30 cm longus, canaliculatus. Inflorescentia 20-30 cm longa, teres, puberula; Pedunculus 15-26 cm longus, erectus, teres, cum bractea una, lanceolata 1 cm longa; Racemus 5-7 cm longus, teres, puberulus cum 2-10 floribus pedicellatis. Flores 3.3-4.2 cm diametro, albido-brunnei, parum fragrantis. Sepala sub-equalia, patentia, extus puberula, 5-nervia, brunneo-purpurea, apices basique viridia; Sepalum dorsale 1.85-1.95 x 0.76-0.82 cm, ellipticum, acutum; Sepala lateralia 2-2.1 x 0.58-0.61 cm, Oblonga Vel parum falcata, acuta, 5-7 nervia. Petala 1.7-1.75 x 0.4-0.5 cm, rhomboidea, parum acuminata, 3-nervia, utrinque glabra, ejusdem coloris quam sepala, sed pallidiores. Labium 2.35-2.40 x 1.8-1.9 cm, cremeus; lobus lateralis oblongo-ovatus, parallelus lobum apicalem, lobus apicalis sub-reniformis, ad picem cum lobulis duobus, sub-obovatis, obtusis, parum fimbriatis,

parum divergentibusque, separatis a sino triangulari, discus inter lobus laterales cum callis tribus vadosis elongatisque, crescentibus basi et convergentibus versus sinum apicalem.

DESCRIPTION

Pseudobulb 2-3 x 1.5-2 cm, ovoid, with 2 to 3 annular rings, new pseudobulb develops from the side of the old one carrying new leaves and an inflorescence enclosed in 3, tubular sheathing bracts 3.8-8 cm long. Leaves 3, 50-60 cm long, petiolate; lamina 20-30 x 6-12.1 cm, elliptic-lanceolate, acute; petiole 20-30 cm long channelled.

Inflorescence 20-30 cm long, terete, puberulous; peduncle 15-26 cm long, erect, terete with one 1 cm long lanceolate bract; Raceme 5-7 cm long, terete, puberulous, with 2-10 pedicellate flowers. Flowers 3.3-4.2 cm across, whitish-brown, with mild fragrance; sepals sub-equal, spreading, puberulous outside, 5-nerved, brownish-purple with green tips and base; dorsal sepal 1.85-1.95 x 0.76-0.82 cm elliptic, acute, 5-7 nerved. Petals 1.7-1.75 x 0.4-0.5 cm, rhomboid, slightly acuminate, 3-nerved, both side glabrous, colour shade same as sepals but lighter in shade, spreading lip 2.35-2.40 x 1.8-1.9 cm, oblong in general, creamish white, its lower *ca* 7.5 mm part adnate to the column throughout; lateral lobes oblong-ovate, obtuse, its inner line parallel to apical lobe; apical lobe sub-reniform, its apex with two sub-obovate, blunt, slightly fringed, slightly diverging lobules separated by a triangular sinus; the disc with three shallow elongated calli starting from base and converging towards apical sinus. Spur *ca*

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Figs. 1-8: *Calanthe yuksomnensis* sp. nov.

1. Whole plant; 2. A single flower; 3. Dorsal sepal; 4. Lateral sepal; 5. Petals; 6. Flowering parts showing pedicellate ovary, spur, column and lip; 7. Anther; 8. Pollinia.

TABLE I
COMPARISON BETWEEN CALANTHE YUKSOMNENSIS AND CALANTHE HERBACEA

	<i>Calanthe yuksomnensis</i> sp.nov.	<i>Calanthe herbacea</i> Lindl.
1. Leaves:	2, lamina 20-30 x 6-12.1 cm elliptic-lanceolate, acute, petiole 20-30 cm long, channelled.	5-7, lamina 14.5-30 x 5-9.7 cm, elliptic, caudate-acuminate; petiole 9-24 cm long.
2. Inflorescence:	20-30 cm tall, puberulous; Raceme 5-7 cm long, with 2-10 flowers.	60-94 cm, smooth; Raceme 15-27 cm long, with many flowers.
3. Flowers:	3.3-4.2 cm across.	2-2.7 cm across.
4. Sepals:	brownish-purple with green tips and bases; dorsal sepals 1.85-1.95 x 0.76-0.82 cm; Lateral sepals 2-2.1 x 0.58-0.61 cm.	pale-green; dorsal sepal 1.3-1.7 x 0.5-0.7 cm, lateral sepals 0.8-1.0 x 0.5 - 0.69 cm
5. Petals:	1.7-1.75 x 0.4-0.5 cm, rhomboid.	1.3-1.6 x 0.3-0.5 cm, sub-spathulate.
6. Lip:	2.35-2.40 x 1.8-1.9 cm, creamish-white; disc with 3 shallow longitudinal calli running from base to apex; lateral lobes not diverging but lie side by side (parallel) to apical lobe; apical lobe broad with shallow bilobulate tips, bilobulate tips slightly diverging with obscurely fimbriate margin.	2.5-2.8 cm long, pure white, yellowing on maturity, with a warty triangular yellow callus at its base; lateral lobes diverging; apical lobe considerably bilobulate, narrower; diverging; with smooth margin.

2.3 cm long, straight, cylindrical, with slight cleft at basal end. Column *ca* 7.5 mm long. Anther ovate. Pollinia 8, *ca* 3-3.2 mm long, obovate or clavate, sub-equal, yellow; disc *ca* 9.5 mm long, oblong-ovate, translucent white.

Typus: INDIA: Sikkim, Yuksom; 20.v.1996, Coll. Luksom 311a (Holotypus CA CAL)

Isotypus: b,c,d Gangtok, Forest Department, Herb.

Flowers: May and June.

Grows on forest floor at 1400-1800 m.

The fresh flowering plants collected during the survey were examined and found to be entirely different from other *Calanthe* species.

Terrestrial, pseudobulbous plants, with large plicate leaves. Inflorescence a tall spike arising from leafy axis; lip adnate to the short column throughout its whole length, and 8

pollinia, are some of the characteristic features which justify the placement of this taxon under the genus *Calanthe* of subtribe *Blentinae*.

The new taxon is closely allied to *Calanthe herbacea* Lindl from Sikkim Himalaya, but differs in some characters (Table 1).

Etymology: The new species is named after the place from where it was collected.

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REFERENCES

- HOOKER, J.D. (1880): The Flora of British India, Vol 6
JOSEPH, J. (1987): Orchids of Nilgiris.
KING & PLANTLING (1898): The Orchids of Sikkim

- Himalaya. *Ann. Roy Bot. Gard. Calcutta.*
PRADHAN, U.C. (1979): Indian Orchids, Guide to identification and culture, Vol I. Rishi Road, Kalimpong.